

CHAPTER 1

INTRODUCTION

1-1. Purpose

This manual provides a comprehensive reference source for planning, and designing a central vehicle wash facility (CVWF) at U. S. Army installations. The CVWF provides a rapid, economical method for washing tracked and wheeled tactical vehicles. The design elements provide for water pollution control, solid waste disposal, and conservation of manpower and water.

1-2. Scope

This manual is limited to wash facilities and wastewater treatment for cleaning vehicle exteriors only; this design information does not pertain to facilities for treating wastewater from maintenance cleaning activities.

1-3. References

The following documents form a part of this manual to the extent referenced:

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| TM 5-820-1 | Surface Drainage Facilities for Airfields and Heliports |
| <i>Standard Methods for Examination of Water and Wastewater</i> (1987), American Public Health Association, 1015 15th Street N.W., Washington, D.C. 20005; American Water Works Association, 6666 S. Quincy Avenue, Denver, CO 80235; and Water Pollution Control Federation, 2626 Pennsylvania Avenue, Washington, D.C. 20037 | |
| <i>Elements of Water Supply and Wastewater Disposal</i> , edited by G.M. Fair, J.C.D. Geyer, and D.A. Okun, Second Edition (1971), John Wiley and Sons, Inc., 605 Third Avenue, New York, NY 10158 | |

1-4. Applicability

Information in this manual applies to all CONUS Army installations that maintain a fleet of vehicles for which there is a consistent washing requirement demanding cost-effective, on-post facilities.

1-5. Explanation of terms and abbreviations

Terms and abbreviations used in the manual are explained in the glossary.

1-6. Background

The Army has unique vehicle cleaning requirements in terms of numbers, types of vehicles, washing time, and degree to which washing is critical. Civilian technologies for cleaning Army off-road tactical vehicles and treating the wastewater created by this washing are not recommended. However, civilian technology may apply to facilities for washing vehicles in a transportation motor pool (TMP), most of which are the wheeled, on-road type such as sedans and buses. Figure 1-1 shows the recommended washing sequence for tactical vehicles. For installations where specific conditions require that a prewash be constructed, the washing procedure is shown in figure 1-2. The central vehicle wash facility is designed to provide expedient, cost-effective vehicle cleaning for tactical vehicles. The concept incorporates water conservation including recycle techniques and pollution control.

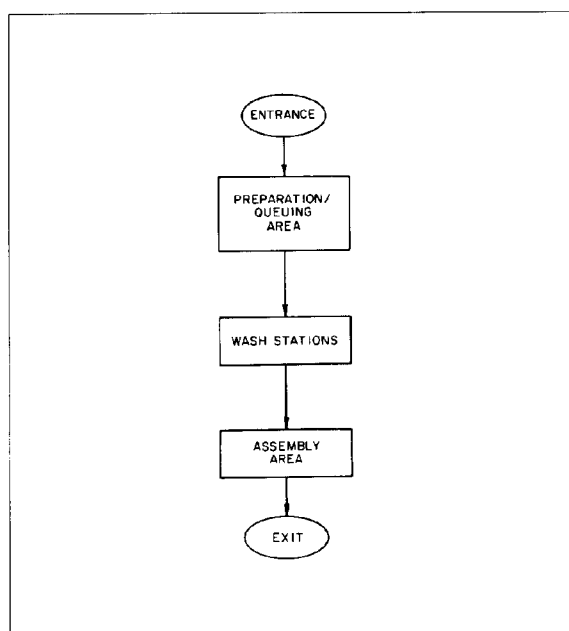


Figure 1-1. Standard washing sequence for tactical vehicles.

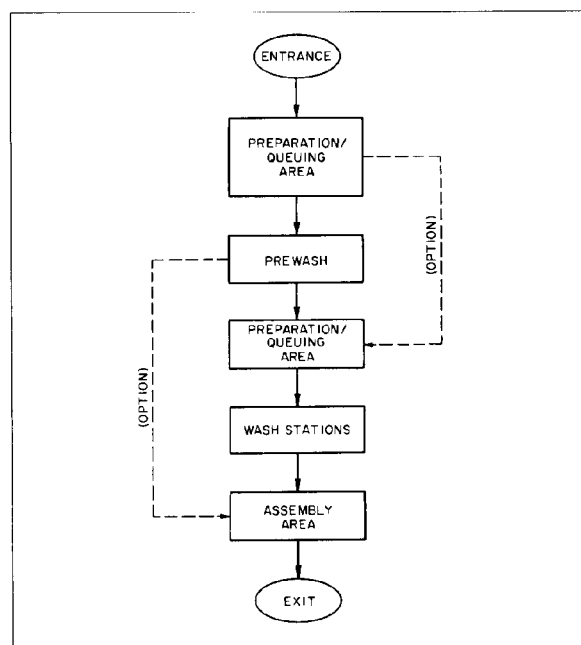


Figure 1-2. Washing procedure with optional prewash.